MAC Address Table Configuration

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Chapter 1 MAC Address Table Configuration

1.1 MAC Address Configuration Task List

This chapter is to describe the functions of configuring MAC address table on the OLT as follow:

- Configuring static MAC address

- Configuring MAC address aging time

- Displaying MAC address table

- Removing dynamic MAC address

1.2 MAC Address Configuration Tasks

1.2.1 Configuring Static MAC Address

The static MAC address entries mean those MAC address entries that cannot be aged by OLT but only be removed manually. According to actual requirements of OLT, you can decide whether to add or remove static MAC addresses. Enter the global configuration mode and run the following commands to add or delete a static MAC address.

Note:

The unicast mac address cannot be configured under the PON port, but can be configured under the ONU port or uplink port. The multicast mac address cannot be configured under the ONU port, but can only be configured under the PON port and uplink port. The multicast address can be configured with multiple ports.

Command	Purpose
configure	Enters the global configuration mode.
[no] mac address-table static *mac-addr* **vlan** *vlan-id* **interface** *interface-id*	Adds/deletes a static MAC address entry. *mac-add r*means a mac address; *vlan-id* means VLAN number, the effective range is1~4094; *interface-id* means an interface name.
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.2 Configuring Black Hole MAC Address

Black hole MAC address entry means the MAC address entry that to be dropped. If the source MAC or destination MAC of the packet matches with the black hole MAC address, the packet will be dropped. Enter the global configuration mode and run the following commands to add or delete a black hole MAC address.

Command	Purpose
config	Enters the global configuration mode.
[no] mac address-table blackhole *mac-addr* **vlan** *vlan-id*	Add/delete a black hole MAC address entry. *mac-addr* means a mac address; *vlan-id* means VLAN number, the effective range is1~4094;
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.3 Configuring MAC Address Aging Time

When a dynamic MAC address is not used within a specified aging time, the OLT will delete it from MAC address table. The MAC aging time of OLT can be set according to actual needs, and the default aging time is 300 seconds.

Enter the global configuration mode and configure the Aging time of MAC address as follows:

Command	Purpose
configure	Enters the global configuration mode.
**[no] mac address-table aging-time {0	10-1000000}**	Configures the aging time of mac address 0 means the address does not age; The range of MAC address aging time is10 to -1000000 seconds.
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.4 Displaying MAC Address Table

During the operation of OLT, we, due to debugging or management, to know the content of the MAC address table of OLT, run show command.

Command	Purpose
show mac address-table [**dynamic** [**interface** *interface-id*	**vlan** *vlan-id*]	**brief**	**static**	**multicast**	**interface** *interface-id*	**blackhole**	*H.H.H*]	Displays the content in the MAC address table. **Dynamic** means the MAC address which is learned dynamically. *vlan-id* means VLAN number, the effective range is1~4094;

- 3 -	*interface-id* means an interface name. **brief** means mac address statistics; **static** means the static MAC address table. **Multicast** means multicast mac address table; **Blackhole** means black hole MAC address; *H.H.H* means the concrete mac address.

1.2.5   Removing Dynamic MAC Address

In some cases, some learned MAC addresses on OLT need be removed.

Enter the privileged mode and use the following commands to delete a dynamic MAC address.

Command	Purpose
clear mac address-table dynamic [**address** *mac-addr* | **interface** *interface-id* | **vlan** *vlan-id*]	Deletes a dynamic MAC address entry. **Dynamic** means the MAC address which is learned dynamically. *mac-addr* means a mac address; *interface-id* means an interface name. *vlan-id* means vlan number. The value ranges from1 to 4094.